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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,014	08/04/2005	Akira Tsujimoto	HOK-0255	2048
74384	7590	01/16/2008		
Cheng Law Group, PLLC 1100 17th Street, N.W. Suite 503 Washington, DC 20036			EXAMINER MATOCHIK, THOMAS L	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 01/16/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/522,014

Applicant(s)

TSUJIMOTO ET AL.

Examiner

Thomas Matochik

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The applicant's amendment filed on 10/19/2007 was received. Claim 1 has been amended and new claims 6-8 have been added.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura (WO98/15600 using US 6,407,033 as the English translation).

Regarding independent claims 1 and 2: Kimura teaches a photocatalyst containing silicone resin composition (col. 16, lines 35-43) comprising TiO₂ (col. 15, C-1 and C-2), a Zirconium compound (col. 15 and 16, Z-4, Z-6 and Z-7), a hydrolyzable silicone resin (col. 16, S-1, S-2 and S-3) and an SiO₂ sol (col. 15, Z-1). Kimura teaches mixing the TiO₂ component homogeneously within the composition (col. 16, lines 36-42). Further, it is taught that the Zr compound content is 0.15 ppw relative to 1 ppw of TiO₂, the SiO₂ content is 0.8 ppw relative to 1 ppw of TiO₂ and 0.8 ppw relative to 1 ppw of the hydrolysable silicone resin (col. 17, Table 1, Example 20).

The content of the Zr compound taught by Kimura is slightly outside the range of 0.1 to 1 ppw relative to TiO₂. However, MPEP, 2144.05, II, Optimization of Ranges, it

states: "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation".

Regarding claim 4: Kimura teaches that the photocatalyst composition is coated and dried between 50 and 300°C (col. 11, lines 34-44).

Regarding claim 5: Kimura teaches several articles that were used for the coating substrate including polyester film, glass plate, PVC sheet and an acrylic plate (col. 14, lines 35-41 and Table 2, codes TA, TB and TC).

Regarding claims 6 and 7: Kimura teaches mixing the TiO₂ component homogeneously within the composition (col. 16, lines 36-42).

Regarding claim 8: Kimura teaches the photocatalytic composition is a single layer coated on top of an adhesive layer between the photocatalytic layer and the substrate col. 17, lines 49-53 and Table 2). The adhesive layer provides only a means to adhere the active layer to the substrate and as such is essentially part of the substrate with the active, photocatalytic layer on top.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kimura, (WO98/15600, using US 6,407,033 as the English translation), as applied to claim 1 above, and as evidenced by Koyanagi (US 7,192,986)

Regarding claim 3: Kimura teaches the silica sol Z-1, tradename Cataloid SI-30 (col. 15, lines 24-26) but does not teach the particle size. Koyanagi, however, teaches that Cataloid SI-30 has a mean particle size of 12 nm (col. 8, Example 13, lines 59-62).

Response to Arguments

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Matochik whose telephone number is 571-270-3291. The examiner can normally be reached on Monday-Friday 7:30 AM-5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TLM
12/27/2007


MARK EASHOO, PH.D.
SUPERVISORY PATENT EXAMINER

14/JAN/08